

## REMARKS

Applicants have carefully reviewed the contents of the Office Action mailed June 14, 2005, in which claims 15-24 were allowed. Reconsideration is respectfully requested in view of the foregoing amendments.

By this Amendment, the specification is amended and claims 13-19 and 22 are amended. Accordingly, claims 13-24 are pending in the instant application.

Claims 13 and 14 are rejected under 35 U.S.C. §112, first paragraph as failing to comply with the enablement requirement. Looking at Figure 2a of the drawings, it is clear that each electric driving signal  $V_{LCD1}$  or  $2$  is a square wave and has a varying amplitude from logic 0 to logic 1. As shown in Figures 2a and 2b, the polarity change occurs only with the potential difference (voltage) of the two driving signals ( $V_{LCD} = V_{LCD1} - V_{LCD2}$ ) that apply driving voltage to the LCD electrooptic switching element. Accordingly, claim 13 is amended to recite “an LCD electrooptic switching element … with two electrodes where square-wave electric driving signals apply driving voltage to the two electrodes to drive the … switching element”, “obtain[ing] a time integral value Int of the driving voltage” and “controlling the polarity of the electric driving voltage”. Similarly, claims 14-19 and 22 are amended to recite an electric driving voltage instead of the electric driving signal.

In addition, the paragraph spanning lines 19-24 of page 4 of the originally-filed specification has been revised to recite an integrator that “integrates the potential difference of the voltages on the driving electrodes of the LCD electrooptic switching elements in such a way that it preserves the value of the time integral of the difference of the electric driving voltage within the predetermined interval (e.g.,  $V_{C1} \leq I_{nt} \leq V_{C2}$ ).” That

is, the potential difference between the two driving electrodes of the LCD switching element is integrated and the integrator controls the driving signals in such a way that it preserves the value of the time integral of the electric driving voltage within the predetermined interval (e.g.,  $V_{C1} \leq I_{nt} \leq V_{C2}$ ). Likewise, for example, the last four lines of page 7 to line 1 of page 8 of preferred embodiment 1 of the originally-filed specification support the amendments and enable the claims as those lines refer to measuring the time integral of the difference of the electric driving signals (driving voltage) on the electrodes of the electrooptic switching element so that the difference of the driving signals (driving voltage) remains all the time within the allow interval ( $V_{C1}$  to  $V_{C2}$ ). As one of ordinary skill in the art would understand, the difference of the driving signals is **identical** to the driving voltage across the electrodes (3, 4) of the LCD switching element (1). Original claim 1 additionally provides support for integrating “the potential difference between the electrodes of the LCD electrooptic switching element so that it keeps the time integral  $I_{nt}$  of the driving voltage within the predetermined interval ( $V_{C1} \leq I_{nt} \leq |V_{C2}|$ )”. Accordingly, it is believed that claims 13-14 are fully enabled by the originally-filed specification and withdrawal of this rejection is respectfully requested.

Claims 13-14 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for the reasons set forth in paragraph 5 of the Action. In particular, the Action asked if the time integral value Int is a current, voltage or time. The formal units of the driving voltage time integral ( $\int_0 V_{LCD}(t)dt = Int$ ) are Vs. However, as known to those having ordinary skill in the art, the output of the integrator in electronics is a voltage, which is proportional to the time integral of the driving voltage (difference of the electric driving signals on the two electrodes of the LCD light switching element) inputted into

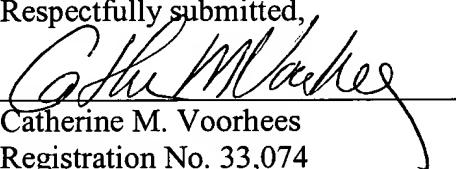
the integrator (see for example: Horowitz and Hill: "Art of Electronics", Cambridge Univ. Press 1989; chapter 4, page 222; 4.19). In view of the foregoing amendments, claims 13-14 (as well as claims 15-24) recite integration of a voltage as one of ordinary skill in the art would have understood reading Applicants' full disclosure. Accordingly, claims 13-14 are fully definite under 35 U.S.C. §112, second paragraph and withdrawal of this rejection is respectfully requested.

In view of the foregoing amendments, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 112, first and second paragraphs, and the issuance of a Notice of Allowance indicating that claims 13-24 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, he is encouraged to telephone the undersigned counsel to arrange such a conference.

Respectfully submitted,

Date: October 7, 2005

  
Catherine M. Voorhees  
Registration No. 33,074  
VENABLE LLP  
P.O. Box 34385  
Washington, D.C. 20043-9998  
Telephone: (202) 344-4000  
Telefax: (202) 344-8300

CMV  
DC2/686065